Creative communities, collaborative networks and distributed economies.

Promising signals for a sustainable development.

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Abstract

The paper introduces some *promising cases* of social innovation and discusses the possibility/opportunity of moving from them to conceive and develop sustainable *enabling solutions*.

In particular, it focalises two clusters of cases (the *creative communities* and the *collaborative networks*) that permit to build a new and practicable vision of a sustainable future: the *multi-local society*. A vision that should have the capability to catalyze the action of different social actors in a sustainable direction.

1. Promising cases: creative communities and cooperative networks

Transition towards sustainability requires radical changes in the way we produce and consume and, more in general, in the way we live. In fact, we need to learn how to *live better* (the entire population of the planet) and, at the same time, *reduce our ecological footprint* and *improve the quality of our social fabric*. In this framework the link between the environmental and social dimensions of this problem clearly appears, showing that *radical social innovation*[1] will be needed, in order to move from current unsustainable models to new sustainable ones.

Given the nature and the dimension of this change, we have to see transition towards sustainability (and, in particular, towards sustainable ways of living) as a *wide-reaching social learning process* in which the most diversified forms of knowledge and organisational capabilities must be valorised in the most *open* and *flexible* way. Among these, a particular role will be played by local initiatives that, for some reasons, can be seen as signals of new behaviours and new ways of thinking.

How to recognize these signals of social innovation? How to recognize where does “the new” come from? And how to recognize if and when it can be considered as a step in the direction of sustainability?

In order to answer these questions our starting point is the observation that, in the framework of the contemporary society, cases of social innovation are continuously emerging in the form of new behaviours, new forms of organisation, new ways of living. Some of them are even more unsustainable than the previous ones, but some others appear as interesting moves toward more sustainable ways of living. These cases may be defined as ***promising cases*. i.e. examples of initiatives where, in different ways and for different motivations, some people have re-oriented their behaviours and their expectations in a direction that appears to be coherent with the principles of social and environmental sustainability.**

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[1] *Social innovations*: changes in the way individuals or communities act to get a result (i.e. to solve a problem or to generate new opportunities). These innovations are driven by behaviours changes (more than by technology or market) and they emerge from bottom-up processes (more than from top-down ones). If the way to get a result is totally new (or if it is the same result to be totally new), we may refer to it as a *radical social innovation.*

Even if, at the moment these promising cases are the expression of some social minorities, and confronted with the main-stream ways of thinking and behaving many of them tend to disappear, they are crucial for promoting and orienting the transition towards sustainability. In fact they present themselves as social experiments and, as a whole, as a *large laboratory of possible futures*. A laboratory where different ways towards sustainability may be searched and assessed. As in every laboratory, also in the one of the "possible futures", nobody can a priori say which experiment will be really successful. Nevertheless, every attempt may give some useful experiences if we are abel to recognize it and to learn form it.

In the following notes I well consider two clusters of promising cases: *creative communities* and *collaborative networks*.

Creative communities

Observing society as a whole and in all its contradictoriness, we can see that alongside numerous worrying tendencies, signals are also emerging that indicate different and far more promising developments. Signals, still weak, but all the same stating clearly that another way of being and doing is possible.

> *For instance*: groups of people who re-organise the way they live their home (as in the *co-housing* movement) and their neighbourhood (bringing it to life, creating the conditions for children to go to school on foot; fostering mobility on foot or by bike). Communities that set up new participatory social services for the elderly and for parents (such as the young and the elderly living together or micro-nurseries set up and managed by enterprising mothers) and that set up new food networks fostering producers of organic items, and the quality and typical characteristics of their products (as in the experience of Slow Food movement or in the ones of the solidarity purchasing groups and fair trade organisations)[2]

The list of examples could continue showing their variety, but also their common denominators[3].
In fact, considered as a whole, these promising cases tell us that, already today, it is possible to do things differently and consider one's own work, one's own time and one's own system of social relationships in a different light. They show that there are people who are able to act outside the dominant thought and behaviour pattern and organise themselves, and cooperate with others, to achieve concrete, positive results.

We will refer to them with the expression ***creative communities*: groups of innovative citizens organising themselves to solve a problem or to open a new possibility, and doing so as a positive step in the social learning process towards social and environmental sustainability**[4].

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[2] See examples of promising cases in the SEP/EMUDE repository: http://www.sustainable-everyday.net/EMUDE/

[3] We refer here to the results of on-going research activities and, in particular, to the results in progress of EMUDE-*Emerging User Demands,* an on-going Specific Support Action that focuses on promising European cases of social innovation oriented towards sustainability. More precisely: EMUDE - *Emerging user demands for sustainable solutions: social innovation as a driver for technological and system innovation* 2004-2006 (NMP2-CT-2004-505345) EMUDE seeks to shed more light on cases where subjects and communities use existing resources in an original way to bring about system innovation. From here, it intends to pinpoint the demand for products, services and solutions that such cases and communities express and point to research lines that could lead to improved efficiency, accessibility and diffusion. Actions: a) identify cases of social innovation geared towards sustainability; b) evaluate, select and bring the most promising cases to light; c) clarify the demand for products, services and solutions they give rise to; d) visualise, communicate and disseminate these cases and their possible implications by mean of technological trends, scenarios and roadmaps. (End date: 2006-03-31 Duration: 24 months. Instrument: Specific Support Action).

Collaborative networks

Something very interesting is happening in the field of organisations and in ways in people participate to collaborative projects. The starting point of this phenomenon is the organisational model emerging from the Open Source software movement[5].

Over the last decade the principles behind this highly collaborative approach have increasingly been applied to areas beyond the coding of software (Lessig, 2001; Stalder, Hirsh, 2002). And now, we can observe that these principles have been highly successful in proposing collaborative and effective organisational models in several other application fields.

> *For instance*: the building of new common knowledge, as in the case of *Wikipedia*, the encyclopaedia that, in few years, has become the largest one in the world. The realisation of new forms of social organisation as in the cases of *Meet-Up, SmartMobs* and *BBC Action network*: *"platforms for actions"* that permit to get together people interested in doing something (from renting a bus for a journey, to cleaning a river bank) and, once that the necessary critical mass is achieved, to support them in doing it. The application of the peer-to-peer approach to health care activities, as in the case of *Open welfare*, a project led by the British Design Council.

The innovative character of these new models has to be underlined. All these examples of *collaborative networks* are characterized by motivations and ways of doing that, until few years ago, where unimaginable, and that now appear to be possible. And to be capable to catalyze large members of interested people, to organize them in a peer-to-peer modality, to builid a common vision and a common direction, and to develop even very complex projects at the global scale (as in Wikipedia) or at the local one (as in *Meet-Up, SmartMobs* and the *BBC Action network*). Quoting the British Design Council, that refers to them with the expression *Open model*, they are: **new forms of organisation that do not rely "on mass participation in the creation of the service. The boundary is blurred between the users and producers of a service. It is effectively often impossible to differentiate between those who are creating the service and those who are the consumers or users of the output"** (Cottam, 2004b).

A possible convergence

To conclude this part, it is useful to underline that *creative communities* and *collaborative networks*, until now, have been two different and rather separate phenomena. Except for some minor overlappings, they have been generated by different people with different motivations. Nevertheless, I think that, in the next future, they will converge and become a unique complex dynamic of social change. Doing so, they will strongly reinforce each other: creative communities will bring the lively richness of people involved in real, daily problems, and collaborative networks will bring the new opportunities that have been opened by their brand new forms of organisation[6].

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[4] We have defined these people as "creative", because they are groups of innovative citizens that are creative enough to invent new ways to solve a problem and/or to open new possibilities (Manzini, Jegou, 2003). Considering the dynamism that characterize these creative communities we can connect the discussion on them to the old debate on the *active minorities* (Moscovici, 1979) and to the most recent one on the *creative class* (Florida, 2002), the *cultural creatives* (Ray, 2000) and the creative cities (Landry, 2000). Even if the kind of social creativity that interests us here (the creativity of citizens who are involved in creative communities) do not coincide with the one usually considering when talking about creative class or the cultural creatives, we can assume that they face similar problems and opportunities.

[5] The best-known open source collaborative experience is the Linux software, originally developed by the Finnish graduate student Linus Torvald. Anyone can use Linux for free as long as any changes or new features are shared with others at no cost. Simple rules, shared goals and clear yardsticks for judging performance, allows this global community to share ideas and, as a result, to improve the software, which is a *shared, public good.*

[6] Looking at these emerging phenomena, it is reasonable to assume that the same principles of the peer-to-peer organisations can be extended to facilitate the emergence and diffusion of new creative communities and, with them, of new ideas of welfare and well being (Cottam, 2004b). On the other hand, we can also assume that the convergence

But there is another important reason that makes them and their possible convergence so important: taken all together, they can become the building blocks of a new vision: the vision of sustainable *multi-local society*. A society based on a new relation between “local” and “global.

2. Vision: multi-local society and distributed economies

Contrary to what was thought in the past, the joint phenomena of globalisation and increased connectivity have given rise once again to the local dimension. By the expression ‘local’ what is meant now is something very removed from what was understood in the past (i.e. the valley, the village, the small provincial town, all isolated and relatively closed within their own culture and economy). The new local combines the specific features of places and their communities with the new phenomena generated and supported world-wide by globalisation and by cultural, socio-economic interconnection.

As a matter of fact what we see are *creative communities* and *cooperative networks* who invent unprecedented cultural activities, forms of organisation and economic models that are the point of intersection of two complementary strategies: a balanced interaction between the local and the global dimension, on the one hand, and a sustainable enhancement of local (physical and socio-cultural) resources, on the other hand.

What appears is a kind of *cosmopolitan localism* (Sachs, 1998, Manzini, Vugliano, 2000, Manzini, Jegou, 2003), intended as the result of a particular condition characterised by the balance between being localised (rooted in a place and in the community related to that place), and open to global flows of ideas, information, people, things and money (Appandurai, 1990). This is quite a delicate balance as, at any time, one of the two sides can prevail over the other leading to an anti-historical closure or, on the opposite side, it can lead to a destructive openness of the local social fabric and of its peculiar features.

Creative communities, *cooperative networks* and *cosmopolitan localism* are, as it has been said, the building blocks for a new vision: **the vision of a sustainable society that can be defined as a *multi-local society*. I.e. a network of interconnected communities and places, at the same time, open and localised.**

Small is not small and local is not local

In the framework of the multi-local society the dominant ideas of “global” and “local”, and the ones of “large” and “small” are challenged. In fact, for its nature the multi-local society is an highly connected world. And, in this kind of world, *the small is not small*: it is instead (or it can be instead) a knot in a network (the real dimension of which is given by the number of links with other elements of the system). Similarly, and for the same reasons, *the local is not local*, but it is (or it can be) a locally based, cosmopolitan community.
In this conceptual and practical framework, the *multi-local society* appears as a society based on communities and places[7] that are, at the same time, strong in their own identity, embedded in a physical place *and* open and connected to other places/communities[8].

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between creative communities and cooperative network can, and eventually must, be facilitated by an appropriate mix of bottom-up/top-down initiatives. I.e. in order to succeed, it asks for *new forms of governance*.

[7] It is important to underline that the vision of the multi-local society doesn’t propose at all a nostalgic view of the past: it doesn’t refer to little, local autarchic entities, but to places, communities and systems that are, as it has been noted before, highly interconnected.

In other words: in the multi-local society, communities and places are junctions of a network, points of connection among short networks, which generate and regenerate the local social and production fabric and long networks, which connect that place and that community with the rest of the world (De Rita, Bonomi, 1998). Junctions that connect "long global networks" with "short local networks" and that, doing so, provide support to organizational forms and production and service systems based on the *subsidiary principle* (that is: to do on a larger scale only what cannot be done on a smaller scale, i.e. at a local level).

Today, the vision of the multi-local society is still far form the mainstream, but it indicates a direction that, for several reasons, can be successfully undertaken. In fact, not only it is *locally practicable*, given that, as it has been said, it is based on *real cases of social innovation* (the creative communities and the collaborative networks), but also it is coherent with (another) *strong driver of change*: the rise of the *distributed economies* as a potentially successful option.

Distributed economies as a viable option

In the last decades the adjective *"distributed"* has been increasingly used in relation to several different socio-economic systems: information technologies, and the *distributed computing*. Energy systems and the *distributed generation*. Production and the possibilities of the *distributed manufacturing*. The processes of change and *distributed innovation*, *distributed creativity*, *distributed knowledge*. And, finally, in relation to the overall socio-technical systems, the rise of new, more effective economic models: the *distributed economies*.

Some of these concepts became mainstream two decades ago (the "classic" distributed computing). Some of them have a strong position in the international arena (as the concepts of distributed generation and distributed manufacturing). Some of them have emerged, and are emerging, in these years and present a wide and growing audience (distributed innovation, distributed creativity, distributed intelligence and distributed economy).

In all these cases, what the term *distributed*[9] adds to the substantive to which it is related, is the idea that it has to be considered as a web of *interconnected, autonomous elements*, i.e. elements that are capable to operate autonomously, being, at the same time, highly connected with the other elements of the system.
In different words: **what the adjective "distributed" indicated is the existence of an *horizontal system architecture* where complex activities are accomplished in parallel by an high number of connected elements (technological artefacts and/or human beings).**

Considered as a whole, the diffusion of this particular system architectures can be seen as the result of two major *drivers* and of a new *technological platform*.

- *techno-economic driver*: the search for flexibility, effectiveness, waste reduction, system robustness and security.

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[8] It should be added that cosmopolitan localism generates and is generated by a new idea of well-being. This well-being is based upon the awareness of the way and the extent to which some local qualities can contribute to the possibility of feeling good; moreover the awareness of how and the extent to which, for example, the sense of security resulting from a still active social fabric, the healthiness of the places, the beauty of the landscape etc. can contribute to well-being (Censis 2003). This awareness regarding the positive role of quality of context in the definition of well-being is what, first and foremost, distinguishes localism, on which we are focusing here, from the traditional local "village culture" (which, normally, did not attach any value to these characteristics of physical and social context). This awareness, combined with the delocalising potential of information and communication technologies, leads to the spread of new forms of local-global activities which strongly concur to the definition of cosmopolitan localism: why be a broker, a musician or a potter in an inhabitable place, when one can do the same in Tuscany without losing one's necessary international contacts?

[9] *to distribute*: to divide something into portions and dispense it (from: Wiktionary – the wiki-based Open Content dictionary).

- *socio-cultural driver*: the search for being creative, autonomous and responsible, as a basic human inclination, particularly developed in the contemporary society among a growing group of people .
- *new technological platform*: the present higher degree of connectivity and the possibility that it offers to manage very complex systems.

The perspective of the distributed systems could be an interesting model per se: a very productive line of socio-technical innovation to be explored in all its possibilities.
But the same perspective becomes even more important considering its environmental, social, cultural, and political implications.

- *socio-economic implications*: bringing a large part of the value creation process at the local scale, distributed economies generate, and maintain, local wealth and local jobs. At the same time, intensifying local activities and interactions, they reinforce the *social fabric* and prepare a favourable ground to use at best, and to regenerate, the existing *social resources*.

- *environmental implications*: reducing the scale of their individual elements, distributed systems permit to use at best the local resources and to facilitate forms of industrial symbiosis (and, therefore, to reduce waste). In parallel to that, bringing the production nearer to both local resources and final users, they permit to reduce the average transport intensity of its activities (and, therefore, to reduce congestion and pollution).

- *political implications*: bringing the power of decision nearer to the final users and increasing the visibility of the systems on which decisions have to be taken, the distributed systems facilitate democratic discussions and choices. In particular, given that the advantages and problems that are related to a choice can be better compared, they facilitate individuals and communities in taking responsible decisions.

The concrete possibility to develop distributed systems with high environmental, socio-economic, politic implications depends on several issues. One of them is to better understand their potentiality and the capability to recognize the cases when, just now, it is a potentially successful option.

Local productions for multi-local markets

A first success-story of the distributed economies is related to the *re-descovery of the "local",* in the framework of the cosmopolite localism that we have introduced at the beginning of this chapter. In this perspective, *successful local products emerge, which are linked to the identity of the place of origin and to the cultural and social values that characterise their conception and production*. The most commonly known and quoted examples are quality wine and some niche food products, such as those promoted by Slow Food. But also non-food products can be quoted as the essential oils of the Provence region, the Murano glassware, the Casentino wool etc., all products that carry with them the spirit and history of a place and a community, to the end consumer[10].

The success of some local products on the global markets is the most visible part of the re-discovery of the "local": But there is also another, less visible, but even more important side of the story: the one of *local products for local markets*. The cases where direct links between producers and the consumer communities are estabilished. This possibility is particularly clear in the case of food, where innovative, localized, de-intermediated *food networks* are appearing (as in the case of purchasing groups, community based agriculture, farmer markets, vegetable subscriptions, …). But something similar can be found for some other local traditional products and for *the local use of renewable energy* (this point, that is a particularly important one, will be dealt with in the next paragraph too)

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[10] However, for the success of this model, the place and the community, to which these products are related, need to be alive, thriving and of high quality. In other words, if there are products that carry with them the spirit of the place, the quality of this place (and of the community which characterises it) must also be guaranteed. Therefore, a double link needs to be established between the place, the community and the product: the quality of the place and of the community is a decisive element for a product's success; vice versa, the success of a product, to be long-term, needs to favour the qualitative regeneration of the place and the community of origin. In a few words, the products of controlled origin require places and communities of guaranteed quality.

Finally, the issue of the local production for the local market can appear in a different context, driven by different motivation as the possibility to develop *point of sale production*. In this case the re-localisation of a part of the production process has nothing to do with the place per se, but is a direct consequence of the search for light and flexible production systems. The possibility and the opportunity to re-design the process and the products to realize customized final products just-in-time and on-the-spot (i.e. when they are needed and where they are needed) is not new and we can refer to several families of of products: from t-shirt to CD, form book to glasses, from beverages to furniture … for some of these examples the point of sal production is now, the normal way of doing. For some other the idea is still in an early phase. But, it is more than probable that the combined force of the demand for customization and contextualization, the potentialities of new technologies and the increasing environmental and economic costs of transportation will push onwards this concrete possibility of technologically localize products and productions.

Distributed intelligence and distributed energy

Another, even more important, success-story in the perspective of the distributed economies is the one of the *distributed intelligence*. In fact, it is well known and recognized that the Internet and the increasing computing potentialities have generated, and are still generating, a new form of distributed intelligence of the socio-technical systems.

The implications of this phenomenon are radical changes in the organization of the socio-technical system: the solid and vertical organizations that have been considered – and still are – dominant in the industrialised society, are melting in fluid and horizontal ones. New distributed forms of knowledge and decision making are appearing.
The dimension and the power of this phenomenon are today commonly recognized. What is not totally understood are its potentialities and its implications. We can say, for instance, that all the other phenomena of socio-technical innovation that we are dealing with in this paper have to be seen as direct or indirect implications of this first one.

This is the case, for instance, of the *distributed power generation*. This expression usually refers to an energy system (mainly) based on *interconnected little and medium size power generators and/or renewable energy plants*. Its implications is a radical change in the dominant idea of electrical system. But not only: there is the possibility of a new relationship between communities and their technological assets and, possibly, a more democratic way of managing the energy system.

Today, even if it is not yet the main stream strategy, the option of the distributed generation is largely recognized as a very promising one and its implementation has been enhanced in several different contexts, both in dense urban spaces and in the country side, in the North and in the south of the world.
The distributed power option has been made possible thanks to the convergence of several factors as: the existence of highly effective little and medium size power generators and the possibility to base the new energy systems on an intelligent information network.

The integration of distributed intelligence and distributed generation can be seen as the pillar of a new infrastructure: *the distributed infrastructure of a multi-local society.*

3. Enabling solutions and a new idea of industrialization

For what business and institutions are concerned, the promising cases and the distributed economies perspective point to interesting lines for research and express the demand for a new generation products and services: the enabling solutions that could make these initiatives more accessible and more (environmentally, socially and economically) effective.

Let take as example the cases of the creative communities. Creative communities are such because, in their own context, they have invented different ways of behaving and thinking. Looking at them more closely we realise that they emerge in very specific conditions and, above all, they are the result of the enterprise of very special people. People who have been able to think and act by breaking out of the cage of dominant thought and behaviour. Although this almost heroic aspect is the most fascinating side of these phenomena, it is also an objective limit to their diffusion (and often also of their lasting power): exceptional people are not so common and, above all, they are not eternal.

To help these ways of doing things last and spread we must therefore start with these experiences, and the organisational model they have invented and brought to life, and propose products and services specifically conceived to increase their accessibility. In other words we have to imagine and enact ***enabling solutions*, i.e. systems that provide cognitive, technical and organisational instruments so as to enable individuals and/or communities to achieve a result, using their skills and abilities to the best advantage and, at the same time, to regenerate the quality of living contexts, in which they happen to live**[11].

> *For example*: the intention of a group of parents to start up a micro-nursery could be facilitated by an enabling solution that includes, not only a step by step procedure indicating what must be done, but also a system of guarantees that certify to the suitability of the parent organiser and the house, and health and educational support for problems that cannot be solved within the nursery itself. Similarly: a solidarity purchasing group could be supported by special software designed to manage shopping and guarantee relationships with producers; a co-housing project could be facilitated by a system that puts potential participants in touch, helps find suitable buildings or building plots, and that helps overcome any administrative and financial difficulties … The list of examples could continue.

What these examples tell us is that, case by case, enabling solutions can be thought up which, starting from what the organisers are able to do, can supply support at the weak points, integrating such knowledge and abilities that prove to be missing.

The concept of enabling solution therefore indicates a line of research concerning the possibility of developing systems of products, services and knowledge conceived as systems that increase and strengthen individual and collective opportunities. Systems that make given results accessible by actively involving users in bringing them about. In carrying out this role, a special type of solution intelligence has to be brought into play: an intelligence that has to be capable to stimulate, develop and regenerate the ability and competence of those who use it[12].

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[11] Each enabling solution is characterised by a specific *enabling potential* that indicates how much it empowers the users and/or the communities of users. That is, how much it implements the users', and/or communities of users', capabilities to do something that they consider relevant. As, for instance:
Individuals and/or communities empowerment: 1. cultural capabilities (skills and knowledge); 2. physical capabilities (material prostheses)*;* 3. psychological drivers (cultural or ethical interests)*;* 4. economical drivers (saving money or being paid).
Context conditions improvement; 1. accessibility (reducing physical or psychological barriers)*;* 2. time to do it (making more efficient the proposed activity, or liberating time in other activities)*;* 3. space where to do it (reducing the needed space, or liberating other spaces, or creating new spaces)
Systemic issues development; 1. organizational opportunity (to support the activity organization)*;* 2. network building (to support the connection between different actors)*;* 3. community building (to support the building of new forms of communities)*;* 4. critical mass generation (to involve the necessary number of participants)

[12] Obviously the more expert and motivated the user and the simpler the results to be achieved, the simpler the necessary instruments may be. On the other hand, the less expert the user, the more the system must be able to make up for his/hers lack of skill by supplying what he/she doesn't know or can't do. In addition, the less the user is motivated, the more the system must be not only friendly but also attractive as a kind of stimulating experience.

The same cases of social innovation can also express a demand that goes beyond the existing technologies and that indicates new, *socially driven lines of research*.

> *For instance:* experience of shared living facilities could become the starting point for a new generation of apparatus for totally new domestic and residential functions. Solutions that make a healthier diet and direct relations with producers possible could be stimuli for a new rationale in nutrition lines. Cases of localised production and self-production could spur the development of processes and products specifically conceived for this kind of de-centralised production. Experience of mobility systems alternative to the car monoculture, could lead to the development of alternative means of transport. And so on.

When addressing these issues, and the nature of the services they require, it becomes apparent that in most cases these are *complex and contextualised services*. And that they require the collaboration of various players: private firms, public institutions, voluntary associations and, directly or indirectly, the end users themselves. It is for these characteristics that we can refer to them as *partner-based solutions*: solutions that, to exist, ask for the convergence of several partners[13].

System organisers and solution providers

To respond to the previous demands, and to develop and deliver partner-based solutions, companies have to change and to turn towards a role of *systems organisers* and *solution providers*. I.e. they have to know how to organise systems of products and services designed to be jointly used and whose combination is specifically suited to the customer's needs and context.

Even if companies themselves, in principle, agree on the necessity and the opportunity to move in this direction, the shift towards becoming a system organiser and solution provider is not easy. In fact, it means that a company must relate with clients, other companies (often even competitors) and other stakeholders in a completely new way. It means looking at clients and groups of clients (i.e., for instance, the "creative communities") in their specific «context of life» and considering other companies and stakeholders as partners in the process of generating, providing and delivering solutions.

Finally, it has to be underlined that, by the companies' point of view, what has to be considered is not only the issue of how to promote "sustainable solutions", but also the one of conceiving and developing "*industrialised*, *sustainable solutions*". And in developing industrialised, sustainable solutions, problems and difficulties, that may arise, are related not only to the complexity of the results that we want to achieve (the *solutions*) and to the difficulty to conceive them as sustainable systems (the *sustainable solutions*), but also to the way in which the product-service systems, that permit to get these sustainable results, may be "systemised" to become the outputs of a real industrial activity (the *industrialised sustainable solutions*).

A new idea of industrialization

The concept of industrialised sustainable solution has to be better defined. To adopt it mans to move from the traditional idea of *product-oriented linear production* to a new idea of ***service-oriented networked production*****: a production where the main results are services and where the production systems is a socio-technical system built by a variety of actors**.

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[13] The following concepts are based on the results of *HiCS, Highly Customerised Solutions*: a European research that has been funded under the European Community 5th Framework Programme.

This change brings to a new idea of industrialisation where the best of the *local* and *global* knowledge are used to generate highly effective and efficient socio-technical system. And where what has to be made more effective and efficient is a *variable* set of a *variety* of actors and entities. An industrialisation where the search of effectiveness and efficiency has more to do with the *economy of scope* than to the economy of scale and more with a *bottom-up approach*, than with the traditional top-down one.

Finally, and this is the most delicate issue, an industrialisation where the value that has to be created has not to be considered only in terms of *profits* for the enterprises that work in the market economy, but also in terms of a variety of *benefits* for the partners that are driven by a different set of values and operate in the framework of different kinds of economies. As, for instance, the “goal oriented economy” of the social enterprises and the “economy of the gift” of the voluntary actions.

If this direction will be taken a new form of industrialisation will appear: an *advanced industrialisation* with the capacity to get a multiplicity of players together to collaborate in sustainable ways, with a view to sustainable objectives, though operating on different scales and following different rationales. In synthesis: an industrialisation coherent with the challenge of *the transition towards a sustainable multi-local society*.

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